

REPLACEMENT PAGE 1a

~~CROSS-REFERENCE TO RELATED APPLICATIONS~~

There are also seats having forcibly driven seating surfaces, as are disclosed for example in German Patent No. DE 33 24 788 A1 and in European Patent Nos. EP 0 311 993 A2 and EP 0 574 073 A1. However, the seats described in these documents are relatively limited in the motion of their seating surfaces and usually only allow the seating surface to be displaced in one direction, for example up and down as in EP 0 311 993 A2 or turning from side to side as in EP 0 574 073 A1. Only the DE 33 24 788 A1 discloses a seat having a seating surface which is displaceable in two directions of motion, this being effected by lifting means that can raise the seating surface, and in this connection the seating surface can be raised and lowered in the same plane and may be tilted laterally in a circle.

Unlike the above, it is object of the present invention to create a seat with a particularly ergonomically movable seating surface.

The invention suggests a seat having a base, means to support the upper body supported by the base, driving means supported by the base, a seating surface attached to said driving means, so that at least one point of the seating surface is forced to move continuously and cyclically in at least two directions of motion periodically, whereby the number of one period of motion is larger than the number of the other period of motion, the characteristics of patent claim 1.

- 2 -

1/13/04: Amd for Ser. No. 09/807,410 - Inventor(s): Gisela Schon - Filing Date: 4/19/2001

REPLACEMENT LAST PARAGRAPH OF PAGE 11

Figure 1 is a schematic sectional view of a first seat having a seating surface according to the invention and means for supporting the upper body, wherein Figure 1a shows means for supporting the upper body in the form of supports engaging under the arm pits and Figure 1b shows means for supporting the upper body in the form of a stomach support and chin support,

REPLACEMENT PAGE 12

- Figure 2 is a schematic side view of a second seat having a sitting surface according to the invention,
- Figure 3 is the seat of figure 2 in back view,
- Figure 3a shows the detail IIIA of Fig. 3 illustrating a first kind of spring-type lock in extended and locked position.
- Figure 3b shows the detail IIIB of Fig. 3 illustrating a second kind of spring-type lock in extended and locked position.
- Figure 4 is a schematic representation of the drive mechanism of the back support of the seat according to figs. 2 and 3 or of a headrest,
- Figure 5 is a schematic sectional view of a third seat having a sitting surface according to the invention,
- Figure 6 is a schematic sectional view of a fourth seat having a sitting surface according to the invention,
- Figure 7 is a schematic horizontal section of the seat according to Fig. 6
- Figure 8 is a schematic sectional view of a fifth seat having a sitting surface according to the invention,
- Figure 9 is a lengthwise schematic section of the seat according to Fig. 8,
- Figure 10 is a schematic front view of a sixth seat similar to Figs. 6 and 7 with leg-rest,

- 4 -

1/13/04: Amd for Ser. No. 09/807,410 - Inventor(s): Gisela Schon - Filing Date: 4/19/2001

CLAIMS

1.-11. (canceled)

12. (currently amended) A seating device comprising:

a base;

~~means to for supporting support the an upper body of a person, wherein said means for supporting is supported by connected to said the base;~~

~~driving means supported by connected to said the base;~~

a seating surface ~~attached~~ connected to said driving means;

said driving means driving said seating surface so that at least one point of the said seating surface is forced to perform move continuously and cyclically a periodic, continuous and cyclical movement in at least two directions of motion periodically, wherein said periodic, continuous and cyclical movement comprises a first period of motion and a second period of motion, wherein whereby the a number of one said first period of motion is larger than the a number of the other said second period of motion;

wherein said seating surface is not connected to said means for supporting and moves independently of said means for supporting.

13.-18. (canceled)

19. (currently amended) A seating device as in claim 12 wherein said ~~means to support for supporting~~ the upper body comprise at least one supporting device resiliently mounted thereto.

20. (currently amended) A seating device as in claim ~~19~~ 12 wherein said ~~means to support for supporting~~ the upper body comprise at least one supporting device that is displaceable over a guide on a concave motion path relative to the said base independently of the said seating surface.

21. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a back support.

22. (currently amended) A seating device as in claim 19 wherein said at least one supporting device comprises at least one lateral support ~~that supports supporting the upper body~~ under the armpits.

23. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a stomach support.

24. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a headrest.

25. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a neck-rest.

26. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a shoulder-rest.

27. (currently amended) A seating device as in claim 12 further including at least one arm support resiliently ~~supported by the~~ connected to said base and comprising at least one forearm support that is resiliently displaceable in at least a horizontal direction.

28. (previously amended) A seating device as in claim 27 wherein said resilient arm support comprises a suspended mount mechanism.

29. (currently amended) A seating device as in claim 28 wherein whereby said arm support further includes a spring type lock.

30. (canceled)

31. (currently amended) A seating device as in claim 12 further including at least one lower leg support with having a footrest, ~~connected to the seating surface by a mounting device, whereby~~ wherein said lower leg support is being connected to said seating surface by a mounting device and is connected mounted to the said base as well.

32. (canceled)

33. (currently amended) A seating device as in claim 12 further including at least one leg-rest/footrest ~~supported by the~~ connected to said base and being foldable into a recess provided within the said base, ~~whereby~~ wherein said leg-rest/footrest is movable relative to the said base and relative to the said seating surface and is lockably mounted at an angled position by ~~means of~~ a rod or other mounting plates or guides.

34. (currently amended) A seating device as in claim 12 wherein the said number of the larger said first period of motion is chosen to be twice as large as the said number of the other said second period of motion.

35. (currently amended) A seating device as in claim 34 whereby wherein said at least one point of said seating surface is shifted ~~in its angle of inclination~~ about a center of motion that is alterable continuously ~~and one specific the center of motion cannot be defined.~~

36. (currently amended) A seating device as in claim 35 whereby wherein said center of motion is ~~shifted~~ altered depending on ~~in dependence of the corresponding a displacement of the said~~ seating surface about said center of motion.

37. (currently amended) A seating device as in claim ~~12~~ 36 whereby wherein an angle of inclination of said the seating surface is adjustable ~~displaceable in its angle of inclination in a sitting direction and as well as laterally.~~

38. (currently amended) A seating device as in claim 37 whereby wherein said seating surface is displaceable in a forward direction, in a and backward direction and as well as laterally.

39. (currently amended) A seating device as in claim 20 wherein said at least one supporting device comprises a lumbar support.

40. (currently amended) A seating device as in claim 19 wherein said at least one supporting device comprises a chin-support.